
Claims

What we claim as our invention are:

1. The present invention is about bringing a novel function, douche mode, into the hand-held and wall-mounted showerheads for women's personal hygiene by making spiral configuration into the annular recessed cylindrical wall around the spray nozzle on the face plate of hand-held and wall-mounted showerheads to allow a coupling feature in place for screw-on connection by a disposable vaginal douche nozzle or by a flexible douche hose attachable to a disposable vaginal douche nozzle, so that the showerhead water flow path for the disposable vaginal douche nozzle shares the same water flow path with the said spray nozzle and that the spray pattern of the said spray nozzle is unaffected when a disposable vaginal douche nozzle is not screwed onto the coupling structure on the said showerhead face plate, thus resulting in a douche mode created on the showerhead.

2. The showerhead douche mode as defined in claim 1 wherein the coupling engagement between the said spray nozzle and the douche nozzle or the said douche hose may alternatively comprise

a barrel-shape spray nozzle with externally threaded configuration;

an annular clearance space between the said externally threaded barrel-shape spray nozzle and the annular recessed cylindrical wall to allow a douche nozzle with an internally threaded joint end or a regular flexible shower hose to twist on for a coupling engagement; so that the showerhead water flow path for the said douche nozzle shares the same water flow path with the said barrel-shape spray nozzle and that the spray pattern of the said barrel-shape spray nozzle is unaffected when the said douche nozzle is not twisted onto the coupling structure on the showerhead face plate, thus resulting in a douche mode created on the showerhead.

3. The showerhead douche mode as defined in claim 1 wherein the coupling engagement between the said spray nozzle and the said douche nozzle or the said douche hose may alternatively consist of

a douche nozzle with the annular external groove formed around the joint end that can be secured with a snap fit in the annular recessed cylindrical wall by a floating O-ring;

the said floating O-ring that is captivated in the bore of the annular recessed cylindrical wall by a retaining sleeve that defines a recess;

the snap fit feature which is effected by the said groove formed around the joint end of the disposable douche nozzle, so that the showerhead water flow path for the disposable vaginal douche nozzle shares the same water flow path with the said spray nozzle and that the spray pattern of the said spray nozzle is unaffected when a disposable and removable vaginal douche nozzle is not snapped onto the coupling structure on the said showerhead face plate, thus resulting in a douche mode created on the showerhead.

4. The showerhead douche mode as defined in claim 1 wherein the said douche nozzle comprises

a hollow tubular upper body, a hollow tubular lower body, and a joint end;

a joint end that has at least three versions of coupling structures: externally threaded configuration (screw-on type), internally threaded configuration (twist-on type), or groove configuration formed around the joint end (snap-fit type);

four recessed spaced-apart grooves extending longitudinally on the exterior surface of the douche nozzle upper body;

four ridges with four spaced-apart hemispherical bumps along longitudinal axis of each ridge between the said recessed spaced-apart grooves on the exterior surface of the douche nozzle upper body;

a fixed or flexible obtuse angle between the douche nozzle upper body and douche nozzle lower body;

a plurality of apertures nestled within the said four recessed spaced-apart grooves on the douche nozzle upper body;

the said apertures structured in diagonally-downward cone-shape having its reduced end towards the hollow fluid passageway and its enlarged end open to the exterior surface of the douche nozzle upper body;

the douche nozzle lower body that has smooth exterior surface and basically serves as a connecting tunnel between the joint end and the douche nozzle upper body.

5. The showerhead douche mode as defined in claim 1 wherein the said douche hose comprises

a first end, a flexible hose, and a second end;

a first end that has an externally threaded configuration to be attachable to the said coupling feature in claim 1 in the showerhead face plate and a second end that connects with a disposable douche nozzle;

a first end that alternatively has an internally threaded configuration to be attachable to the said coupling feature in claim 2 in the showerhead face plate and a second end that connects with a disposable douche nozzle;

a first end that alternatively has an annular groove formed around the end, as the joint end of the douche nozzle in claim 3, which is secured but removable with a snap fit in the showerhead face plate and a second end that connects with a disposable douche nozzle.